

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1           1. (Currently Amended) A system comprising:  
2                     one or more probes configured to be positioned inside a heart of a patient;  
3                     a processor communicatively coupled to the one or more probes, the  
4     processor being used to process electrical information pertaining to the heart, the  
5     electrical information being sensed using the one or more probes;  
6                     a display communicatively coupled to the processor, the display being  
7     used to display an image of the heart;  
8                     image processing tools which are used by the processor to manipulate the  
9     image; and  
10                    a macro that when activated causes the system to acquire a final vitals  
11                    measurement of the heart, print a report, and to stop recording electrical  
12                    information of the heart.

1           2. (Original) The system of claim 1, wherein the image is acquired using a  
2     computed tomography imaging system, a magnetic resonance imaging system, an  
3     ultrasound imaging system and/or a positron emission tomography imaging system.

1           3. (Original) The system of claim 1, wherein the processor is used to process  
2     position information which pertains to the position of at least one of the one or more  
3     probes positioned in the heart.

1           4. (Original) The system of claim 3, wherein the position information is used to  
2     create a structural map of the heart.

1           5. (Original) The system of claim 1, wherein the image processing tools include  
2     at least one of a volume rendering tool, a virtual endoscope tool, a coronary vessel  
3     analysis tool, an image reconstruction tool, and an image segmentation tool.

1           6. (Original) The system of claim 1, wherein the image is acquired prior to the  
2 probe being positioned in the heart.

1           7. (Original) The system of claim 1, wherein the image is constructed based on  
2 a plurality of image slices each of which represents a cross sectional slice of the heart,  
3 and wherein the image processing tools are used to manipulate the image by  
4 manipulating the plurality of image slices.

1           8. (Currently Amended) A computer based system comprising:  
2           electrophysiology monitoring logic which is used to monitor and control  
3 one or more probes positioned inside a heart; the one or more probes being used to sense  
4 electrical information pertaining to the heart;  
5           mapping logic which is used create a structural map of the heart by  
6 determining the position of at least one of the one or more probes inside the heart; and  
7           image processing logic which is used to manipulate an image of the heart;  
8 and  
9           a macro that when activated causes the system to acquire a final vitals  
10 measurement of the heart, print a report, and to stop recording electrical information of  
11 the heart.

1           9. (Original) The system of claim 8, wherein the image is a computed  
2 tomography image, magnetic resonance image, ultrasound image and/or positron  
3 emission tomography image.

1           10. (Original) The system of claim 8, wherein the image processing logic  
2 includes at least one of the following types of logic: volume rendering logic, virtual  
3 endoscope logic, image reconstruction logic, and image segmentation logic.

1           11. (Original) The system of claim 8, further comprising reporting logic which is  
2 used to create a report which includes the electrical information and the image.

1           12. (Original) The system of claim 8, wherein the electrophysiology monitoring  
2 logic comprises pacing logic which is used to pace the heart.

1           13. (Original) The system of claim 8, wherein the image is a three dimensional  
2 image.

1           14. (Currently Amended) A system comprising:  
2                   one or more probes configured to be positioned inside a heart, at least one  
3 of the one or more probes being used to sense electrical information pertaining to the  
4 heart; and

5                   a data processing system communicatively coupled together and  
6 communicatively coupled to the one or more probes, the data processing system being  
7 configured to store position information pertaining to a position of at least one of the one  
8 or more probes, the data processing system also being configured to store an image of the  
9 heart and image processing tools;

10                   wherein the image processing tools are used to manipulate the image the  
11 image processing tools including a segmentation tool to isolate an area of interest in the  
12 image from other portions of the image, and a contour tracking tool operable to trace an  
13 external surface of a structure on parallel planes using a cursor.

1           15. (Original) The system of claim 14, wherein the image is acquired using a  
2 computed tomography imaging system, a magnetic resonance imaging system, an  
3 ultrasound imaging system and/or a positron emission tomography imaging system.

1           16. (Original) The system of claim 14, wherein the data processing system uses  
2 the position information to create a structural map of the heart.

1           17. (Original) The system of claim 14, wherein the image processing tools  
2 include at least one of a volume rendering tool, a virtual endoscope tool, an image  
3 reconstruction tool, and an image segmentation tool.

1           18. (Original) The system of claim 14, wherein the image is a three dimensional  
2 image.

1           19. (Currently Amended) A combination system comprising:

an electrophysiology monitoring system which is configured to be communicatively coupled to one or more probes positioned inside a heart, the one or more probes being configured to sense electrical information pertaining to the heart; an electrophysiology three-dimensional mapping system which is configured to receive position information pertaining to the position of the one or more probes, the position information being used to create a three-dimensional structural map of the heart, the electrophysiology monitoring system and the electrophysiology three-dimensional mapping system being communicatively coupled together, wherein the mapping system is configured to generate a display of a first and a second marker representative of respective first and second probes, the first marker of a first color in correlation to a first activation time of the heart and the second marker of a second color in correlation to a second activation time different than the first activation time; image processing logic which is used to manipulate an image of the heart.

20. (Original) The system of claim 19, wherein the image processing logic includes at least one of the following types of logic: volume rendering logic, virtual endoscope logic, image reconstruction logic, and an image segmentation tool.

21. (Original) The system of claim 19, wherein the image is a computed tomography image, magnetic resonance image, ultrasound image and/or positron emission tomography image.

22. (Original) The system of claim 19, wherein the combination system is configured to generate a report which includes the image.

23. Cancelled.